astrium
Space Infrastructure

Technical Note

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Title:

Columbus Ground System (CGS) Release Notes V4.5.0

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Bearbeitet: Prepared by:	P.Athmann	**Firma:** Company:	astrium–si
Geprüft: Agreed by:	J.Frank	**Firma:** Company:	astrium–si

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1 Identification of Delivery

This delivery contains the nessessary files to install the Columbus Ground System (CGS) CI Number 1214 597, in its version CGS_V4.5.0

The version includes fixes to a number of corrections to overcome problems reported in SPRs (see below).

It also includes some extensions related to the UCL/HLCL Language and the MDA product

The delivery comprises a complete CGS system with the following components:

- CGSI
- CLS
- CSS
- DBS
- FWDU
- GWDU
- HCI
- MDA / MDB_V4_5_0
- NWSW
- SWES
- TES
- TSCV
- TEV
- TSS
- CGS_API

The software has been verified running specific SPR regression testing as well as rerunning a subset of the CGS qualification procedures.

2 List of fixed SPRs

2.1 List of SPRs

SPRs **fixed** in this delivery and formally **released**:

ID	TITLE	PRODUCT
SPR–4808	HCI: no identification of HLCL window in log messages	HCI
SPR–5698	CLS: Incorrect Call of Ground–Library.Issue	TES
SPR–6030	FWDU – missing onboard command possibility	FWDU
SPR–6055	CLS Internal Error (’CYCLIC_DEPENDENCY_ERROR’)	CLS
SPR–6176	Erroneous Consistency Checker Header Information	MDA
SPR–6380	FWDU – Standard Command List problems	FWDU
SPR–6390	ERRONEOUS CIRCULAR DEPENDANCY	CLS
SPR–6417	Consistency check still takes too long	MDA
SPR–6568	FA SAS Usage Problem	TSCV
SPR–6857	core from ’vicos_hci’ / screen setup failure	CLS
SPR–7020	No check of existing LIBRARIES available	CLS
SPR–7093	HCI crashed with bus error	CLS
SPR–7207	WAIT_FOR_ADU does not have Timeout parameter	TES
SPR–7327	HCI can’t connect to TES	HCI
SPR–7347	Ground_Library.WRITE_MESSAGE_TO_USER Missing Parameter	TES
SPR–7456	List of Units not ordered alphabeticly	MDA
SPR–7495	CSS unnecessarily deletes Kernel	CSS
SPR–7643	Timestamps in Message–Handler corrupted after Replay Session	TES
SPR–7660	AP cannot use its own pathname	CLS
SPR–7664	Consistency Checker Performance Probl.: Cross Reference Checks	MDA
SPR–7703	Inexact errormessage	CGS
SPR–7709	Could not save FWDU composite binary	FWDU
SPR–7710	Attributes in FWDU binary library are overwritten	FWDU
SPR–7841	Check OK – but M_8 doesn’t belong to an ADU	TEV
SPR–7882	properties window not available for CSS nodes	TSCV
SPR–7918	Data lost in MDA/DDED	MDA
SPR–7940	Used Position Number in Bit Stream Layout must be unique	MDA
SPR–7980	Message in foot not removed	HCI
SPR–8105	CLS Internal error: CYCLIC DEPENDENCY_ERROR	CLS
SPR–8232	Additional functionality in CSS Observer required	CSS
SPR–8338	CSS hierarchy browser works like a trap	CSS
SPR–8427	CC complains erroneously monotony of point pair calibration	MDA
SPR–8476	TSCV crashes during deletion of test sessions	TSCV
SPR–8510	Status in synoptic is REQUESTED although aquired	HCI
SPR–8553	CSS_DB_INTERNAL_ERROR raised	CSS
SPR–8561	Timeout error message is displayed twice	TES
SPR–8632	Error in DBS file handler	DBS
SPR–8651	UCL Make Problem: Alias References not updated	CLS
SPR–8659	Consistency Check: ’Pathname reference out scope’ erroneous	MDA
SPR–8714	Incompatible FLAP execution request Interfaces	TES
SPR–8730	Overall Healthcheck Synoptic shows unexpected messages	HCI
SPR–8737	Status Window: Missing ”Loading error messages...”	HCI
SPR–8749	Change of UCL lib body forces recompilation of dependant UCL sources:	CLS
SPR–8750	Monitor Windows in CSS not movable	CSS
SPR–8768	Non–deterministic calculations in CSS	CSS

SPR–8797	Updates on frozen CCUs/CDUs possible	MDA
SPR–8801	New SWES not installed	SWES
SPR–8816	Raw data dump window	HCI
SPR–8823	Eng. Units for APM pressures/delta pressures	MDA
SPR–8833	Decalibration for analogues/discretes in change limit commands from ground	CGS
SPR–8851	MDA create_common.sql does not work	MDA
SPR–8885	ENH: Consistency Checker: comma separated value for usage of MS–Excel	MDA
SPR–8889	'Generate SCOE Files' produces corrupted log output	MDA
SPR–8892	HCI crash	CLS
SPR–8893	closing archive file does not work	HCI
SPR–8924	Call to System Library routine DELAY returned with status 303	TES
SPR–8936	FWDU: Select list DFD commands mixed and/or lost	FWDU
SPR–8940	I_MDB crashes during data entry	MDA
SPR–8942	Wrong error msg: Point pairs describe not a monotonous function	MDA
SPR–8944	Wrong MDA error meassge	MDA
SPR–9008	Error dispatching data to HCI	HCI
SPR–9010	I_MDB: Could not create a test configuration in I_MDB	MDA
SPR–9017	'TSCV configuration stop' produces lot of errors	DBS
SPR–9021	Failed to close test session	DBS
SPR–9025	No home directory for additional scripts	CGSI
SPR–9036	Errors during Batch Compile	MDA
SPR–9037	Wrong Error Information for Batch compile	MDA
SPR–9045	Comparison of Pathname \\ failed	CLS
SPR–9064	Unable to stop SMT at an exact time	TES
SPR–9069	Exception: ACCESS_DENIED raised in SW Unit Exception:	TSCV
SPR–9070	HCI error: could not update an item	HCI
SPR–9074	CGS V4.3.1 quick patch 9 install script wrong calculation	CGS
SPR–9075	CGS V4.3.1 quick patch 9 install script aborts	CGSI
SPR–9083	Problems with kernel configuration after UNPACK	CSS
SPR–9085	Invalid session name	TEV
SPR–9096	STORAGE_ERROR in dbs_local_cyclic_sender.a	DBS
SPR–9106	New Engineering Units in MDB	MDA
SPR–9128	VIT Manager hardcoded constraints	CGSI
SPR–9130	TEV Raw Data Dump: internal error	TEV
SPR–9146	I_MDB: CDU status in pathname incorrect in CCU scope	MDA
SPR–9156	Monitoring Window does not work with 134 list items	HCI
SPR–9160	CGS/CLS: CLS_OBJECT_TABLE.GET_ONBOARD is wrong	CLS
SPR–9213	Opening Monitoring Window: HCI crashed with core dump	HCI
SPR–9214	HCI crash during execution of 24h Test	NWSW
SPR–9218	TES lost connection to DBS	DBS
SPR–9222	ABORT_AP: Error during Command execution, testnode is not participating	HCI
SPR–9224	BDE partial bde_load (aggregate based)	MDA
SPR–9229	HCI generates menu label dynamically	HCI
SPR–9234	CONVERSION_ERROR during HCI startup	DBS
SPR–9264	HLCL rejects string assignement	CLS
SPR–9288	File_IO–SAS: Get_Line problem: works only up to 77 characters	CGS
SPR–9290	MDA: Erroneous display of constituents of FROZEN CCUs	MDA
SPR–9342	install_mdb sets a trap for the user	MDA
SPR–9353	Old UCL Compiler Introduced with Patch	CGS
SPR–9401	HCI crash	CLS
SPR–9409	CC provides wrong CDU information wrt. MDB instance	MDA
SPR–9433	UCL Compiler: Case statement doesn't work	CLS
SPR–9451	UCL: Compiler and HLCL accepting wrong pathnames	CLS
SPR–9452	I_MDB: creating enditem at max. pathname depth	MDA
SPR–9468	I_MDB: Navigation in System Tree Too Slow	MDA
SPR–9469	I_MDB: Filter Problem in CCU Version Browser	MDA

SPR–9470	I_MDB: Page Size for CCU Browser Cannot be Changed	MDA
SPR–9471	Error Message from TCL Command Execution	TES
SPR–9474	I_MDB: Pages of Scrollable Lists Inconvenient/Slow	MDA
SPR–9478	UCL Compiler Internal Error	CLS
SPR–9492	OOL Window / Derived Parameter	TES
SPR–9503	Missing last character in message	TES
SPR–9519	BDE Data Checker Error ORA–20101 (Call–1181)	MDA
SPR–9603	Name Tree Creation/Loading Too Slow	MDA
SPR–9610	CLS Make option —> recursion	CLS
SPR–9629	Start FA_SAS from TEV results in system error	TEV
SPR–9630	I_MDB: SID/Pathname Translator Confusing	MDA
SPR–9654	Cannot connect to CSS kernel	CSS
SPR–9662	User Manual not up to date	CGS
SPR–9663	TSCV Startup Too Slow	TSCV
SPR–9664	TSCV: 'Setting up MDB' Too Slow	MDA
SPR–9675	Extended CGS_API needed	CSS
SPR–9680	I_MDB: Flexible Tool Invocation Parameter Lengths	MDA
SPR–9682	I_MDB: Date Field not Handled Correctly	MDA
SPR–9683	HCI: Explorer Startup Very Slow	HCI
SPR–9694	Error in login script $CGSI_HOME/user_env/cshrc	CGSI
SPR–9700	Measurement Acquisition Status 'STATIC' not changed	TES
SPR–9718	Error found in GWDU startup script	GWDU
SPR–9757	Add System Tree Version creates cyclic CCU references	MDA
SPR–9792	TRDB_OVERALL NOT OK' occurs during test	CGS
SPR–9800	CLS Editor: Missing List of Compilation Errors	CLS
SPR–9829	NWSW changes/fixes	CGS
SPR–9833	I_MDB: Flexible Tool Inv.: Default Value	MDA
SPR–9843	EXECUTE_AP does not work (EXCEPTION CONSTRAINT ERROR)	CLS
SPR–9857	Dataset Generation failed if one paramater empty	TEV
SPR–9890	CLS Batch Compiler: Ground Libraries not correctly reset	CLS
SPR–9899	Reference Classes missing for table T_COMMON_CROSS_REF_LISTS	MDA

SPRs **partially fixed** in this delivery, and kept **formally open** for next delivery:

ID	TITLE	PRODUCT
SPR–7800	Communication Problems	CGS
	–> The described problem is fixed. The SPR remains open to cover additional changes in the communication software for next delivery	

2.2 Covered Quick Patches

Several of the implemented SPRs have been provided as Quick Patches to CGS_4.3.1/4.4.0/4.4.1 already, but are now formally released in this delivery. The following Quick Patches are included into CGS_V4.5.0:

CGS_4.4.1P1 .. CGS4.4.1P5

CGS_4.3.1P11 .. CGS4.3.1P13

2.3 List of Issues

Change–Issues implemented in this release.

Status	Author	CHANGE–ID	DATE	SYNOPSIS
—.P–.I–.T–.—	froese	MDA–SPR–9757.1	01/06/12	Add System Tree Version creates cyclic
—.P–.I–.T–.—	ilenz	MDA–SPR–9899	01/06/11	Reference Classes missing for table T_
—.P–.I–.T–.—	semrau	CLS–SPR–9890	01/06/08	CLS Batch Compiler: Ground Libraries n
—.P–.I–.T–.—	ilenz	MDA–SPR–9890	01/06/08	CLS Batch Compiler: Ground Libraries n
—.P–.I–.T–.—	froese	MDA–SPR–9682	01/06/07	I_MDB: Date Field not Handled Correctl
—.P–.I–.T–.—	ilenz	MDA–IRN–8128.6	01/06/07	MDB_UCL: Extensions for 4.5.0 – correc
—.P–.I–.T–.—	semrau	CLS–SPR–9610	01/06/07	CLS Make option —> recursion
—.P–.I–.T–.—	halwick	TEV–SPR–9857	01/06/06	Dataset Generation failed if one param
—.P–.I–.T–.—	edvin	CLS–ENH–304	01/06/05	Tools update
—.P–.I–.T–.—	froese	MDA–SPR–9630	01/06/05	I_MDB: SID/Pathname Translator Confusi
—.P–.I–.T–.—	ilenz	MDA–IRN–8128.5	01/06/01	MDB_UCL: Extensions for 4.5.0
—.P–.I–.T–.—	froese	MDA–SPR–9833.1	01/06/01	I_MDB: Flexible Tool Inv.: Default Val
—.P–.I–.T–.—	athmann	CGS–SPR–9675	01/05/31	Extended CGS_API (CSS_API) needed
—.P–.I–.T–.—	ilenz	MDA–SPR–9036	01/05/30	Errors during Batch Compile due to ine
—.P–.I–.T–.—	adt_3	HCI–ENH–269	01/05/30	Gonogo Window improvements (CGS forum)
—.P–.I–.T–.—	adt_2	CLS–SPR–9843	01/05/30	EXECUTE_AP does not work (EXCEPTION CO
—.P–.I–.T–.—	halwick	TEV–SPR–9085	01/05/30	Invalid session name
—.P–.I–.T–.—	halwick	TEV–SPR–9130	01/05/30	TEV Raw Data Dump: internal error ORAC
—.P–.I–.T–.—	ilenz	MDA–SPR–9833	01/05/28	I_MDB: Flexible Tool Inv.: Default Val
—.P–.I–.T–.—	bade	NWSW–SPR–9829	01/05/23	NWSW changes/fixes for METOP
—.P–.I–.T–.—	grotheer	MDA–SPR–8843	01/05/23	C SWEU/SWRU load functions ignore the
—.P–.I–.T–.—	werner	CSS–SPR–9553	01/05/23	Unable to store a Statevector for a fr
—.P–.I–.T–.—	werner	CSS–SPR–9654	01/05/23	Cannot connect to CSS kernel
—.P–.I–.T–.—	athmann	CGS–ENH–87	01/05/22	CGS 4.5.0 SUm as Interleaf Document
—.P–.I–.T–.—	athmann	CGS–SPR–9662	01/05/22	User Manual not up to date
—.P–.I–.T–.—	grotheer	MDA–SPR–8844	01/05/22	CGS load SWRU/SWEU in batch mode not u
—.P–.I–.T–.—	semrau	CLS–SPR–8105.4	01/05/18	CLS: Internal Error: CYCLIC_DEPENDENCY
—.P–.I–.T–.—	ilenz	MDA–ENH–4386	01/05/18	Add script complete_mdb_down_and_up_au
—.P–.I–.T–.—	pesch	MDA–ENH–4387	01/05/18	MDB knockdown and rebuild procedure
—.P–.I–.T–.—	semrau	CLS–SPR–9800	01/05/17	CLS Editor: Missing List of Compilatio
—.P–.I–.T–.—	semrau	CLS–SPR–8105.3	01/05/17	CLS: Internal Error: CYCLIC_DEPENDENCY
—.P–.I–.T–.—	ilenz	MDA–ENH–4388	01/05/17	Automatic scripts for installation/dei
—.P–.I–.T–.—	adt_3	HCI–SPR–9229	01/05/17	HCI generates menu label dynamicly
—.P–.I–.T–.—	pesch	MDA–ENH–4389	01/05/17	MDB: Autmatic MDB installation and dei
—.P–.I–.T–.—	froese	MDA–ENH–8660	01/05/17	IMDB: Activate old consistency checker
—.P–.I–.T–.—	danne	CLS–ENH–302	01/05/14	Checked in missing version of cls_depe
—.P–.I–.T–.—	franz	CLS–SPR–8105.2	01/05/11	CLS: Internal Error: CYCLIC_DEPENDENCY
—.P–.I–.T–.—	svogel	CLS–ENH–299	01/05/11	dialogs
—.P–.I–.T–.—	franz	CLS–SPR–8105.1	01/05/10	CLS: Internal Error: CYCLIC_DEPENDENCY
—.P–.I–.T–.—	froese	MDA–SPR–9757	01/05/10	Add System Tree Version creates cyclic
—.P–.I–.T–.—	danne	CGS–IRN–8124.1	01/05/10	GROUND_VALUES System Library
—.P–.I–.T–.—	edvin	CLS–ENH–297	01/05/10	Tools update
—.P–.I–.T–.—	ilenz	MDA–ENH–8659	01/05/10	Change consistency check CGS–ERR–6 (pa
—.P–.I–.T–.—	danne	HCI–SPR–7703.1	01/05/09	Inexact errormessage
—.P–.I–.T–.—	franz	CGSI–ENH–530	01/05/09	README update
—.P–.I–.T–.—	franz	CGSI–ENH–529	01/05/09	New UCL user library Pathname_Library
—.P–.I–.T–.—	franz	CLS–SPR–8105	01/05/08	CLS: Internal Error: CYCLIC_DEPENDENCY
—.P–.I–.T–.—	ilenz	MDA–ENH–7932	01/05/08	Correct consistency check E94
—.P–.I–.T–.—	ilenz	MDA–ENH–4390	01/05/07	Correct I_MDB: Allow insert of multi r
—.P–.I–.T–.—	ilenz	MDA–ENH–4391	01/05/07	Correct MPS_DEFINITIONS: Assign also C
—.P–.I–.T–.—	ilenz	MDA–ENH–4392	01/05/07	Adapt in DDED db_connectPNS for API ch
—.P–.I–.T–.—	ilenz	MDA–ENH–4393	01/05/07	Correct install_mdb: Change create_use
—.P–.I–.T–.—	mata	CLS–ENH–294	01/05/04	Tools update
—.P–.I–.T–.—	svogel	CLS–ENH–292	01/05/04	interpret

—.P–.I–.T–.— ilenz MDA–ENH–4394 01/05/04 Allow start CC on system tree node in
—.P–.I–.T–.— volker GWDU–SPR–9718 01/05/03 Error found in GWDU startup script
—.P–.I–.T–.— franz CLS–ENH–290 01/05/02 Correction to 'string of BYTE' base im
—.P–.I–.T–.— athmann CGS–IRN–8124 01/05/02 GROUND_VALUES System Library
—.P–.I–.T–.— ilenz MDA–ENH–4396 01/05/02 Correct CGS_MDB_V4_5_0: T_DEFAULT_LONG
—.P–.I–.T–.— semrau MDA–SPR–9680.1 01/05/01 I_MDB: Flexible Tool Invocation Parame
—.P–.I–.T–.— adt_3 HCI–SPR–9683 01/04/27 HCI: Explorer Startup Very Slow
—.P–.I–.T–.— dcarl FWDU–ENH–47 01/04/27 FWDU 3.2.6 for CGS 4.5.0
—.P–.I–.T–.— danne CGSI–ENH–526 01/04/27 Set CGS Version to 4.5.0
—.P–.I–.T–.— svogel CLS–ENH–286 01/04/26 interpret
—.P–.I–.T–.— danne HCI–SPR–9222 01/04/26 ABORT_AP: Error during Command executi
—.P–.I–.T–.— marz TES–SPR–9700 01/04/26 Measurement Acquisition Status 'STATIC
—.P–.I–.T–.— franz CLS–SPR–7020.1 01/04/26 No check of existing LIBRARIES availab
—.P–.I–.T–.— ilenz MDA–SPR–7664.1 01/04/26 Consistency Checker Performance Probl.
—.P–.I–.T–.— ilenz MDA–SPR–6417 01/04/25 Consistency check still takes too long
—.P–.I–.T–.— adt_3 TSCV–SPR–9069 01/04/25 Exception: ACCESS_DENIED raised in SW
—.P–.I–.T–.— bier MDA–ENH–8627 01/04/25 Corrections for new CC
—.P–.I–.T–.— danne HCI–SPR–9070 01/04/25 HCI error: could not update an item
—.P–.I–.T–.— schipper CGSI–SPR–9694 01/04/25 Error in login script $CGSI_HOME/user_
—.P–.I–.T–.— werner DBS–SPR–9671 01/04/24 dbs_central_exec : semop: REQUEST: Inv
—.P–.I–.T–.— semrau MDA–SPR–9663 01/04/22 TSCV Startup Too Slow
—.P–.I–.T–.— semrau TSCV–SPR–9663 01/04/22 TSCV Startup Too Slow
—.P–.I–.T–.— semrau MDA–SPR–9664 01/04/22 TSCV: 'Setting up MDB' Too Slow
—.P–.I–.T–.— semrau MDA–SPR–9680 01/04/22 I_MDB: Flexible Tool Invocation Parame
—.P–.I–.T–.— ilenz MDA–ENH–4397 01/04/20 DADIMA: Correct mapping
—.P–.I–.T–.— bier MDA–ENH–8626 01/04/20 Corrections for new CC
—.P–.I–.T–.— adt_3 TSCV–SPR–7882.1 01/04/18 properties window not available for CS
—.P–.I–.T–.— froese MDA–ENH–4398 01/04/18 CC: Correction
—.P–.I–.T–.— ilenz MDA–ENH–4399 01/04/18 Add upgrade_from_CGS_MDB_V4_2_0_to_CGS
—.P–.I–.T–.— adt_3 TSCV–ENH–83 01/04/17 function name corrected
—.P–.I–.T–.— franz CLS–ENH–280 01/04/17 Collect existing UCL libraries
—.P–.I–.T–.— ilenz MDA–ENH–4450 01/04/17 Add upgrade_from_CGS_MDB_V4_2_0_to_CGS
—.P–.I–.T–.— adt_3 TSCV–ENH–81 01/04/17 lexical error removed
—.P–.I–.T–.— ilenz MDA–ENH–4446 01/04/17 correct MDB_UCL
—.P–.I–.T–.— bier MDA–ENH–4445 01/04/12 new consistency checker
—.P–.I–.T–.— adt_3 TSCV–SPR–7882 01/04/12 properties window not available for CS
—.P–.I–.T–.— adt_3 TSCV–IRN–8132 01/04/12 Participating flag for simulation node
—.P–.I–.T–.— juergen CSS–IRN–8131.1 01/04/11 adopt issue CSS–IRN–8131 from Mainline
—.P–.I–.T–.— werner DBS–ENH–102 01/04/11 Events not logged in named sessions
—.P–.I–.T–.— werner TES–IRN–8129 01/04/11 Extension of valid types (GDU descript
—.P–.I–.T–.— werner DBS–SPR–9096 01/04/11 STORAGE_ERROR in dbs_local_cyclic_send
—.P–.I–.T–.— froese MDA–ENH–4444 01/04/11 IMDB: Correction of list menue
—.P–.I–.T–.— semrau MDA–SPR–9474.1 01/04/10 I_MDB: Pages of Scrollable Lists Incon
—.P–.I–.T–.— froese MDA–ENH–4443 01/04/09 IMDB: Disable old consistency checker
—.P–.I–.T–.— froese MDA–ENH–4442 01/04/09 CC: New consistency checker
—.P–.I–.T–.— ilenz MDA–ENH–4441 01/04/06 Correct body compilation time in MDB_U
—.P–.I–.T–.— volker GWDU–ENH–21 01/04/06 Adaptation to new Tcl/Tk version
—.P–.I–.T–.— semrau MDA–SPR–9603 01/04/06 Name Tree Creation/Loading Too Slow
—.P–.I–.T–.— svogel CLS–ENH–279 01/04/05 calibration
—.P–.I–.T–.— franz CLS–ENH–278 01/04/05 Correction of mda/file_io
—.P–.I–.T–.— ilenz MDA–IRN–8120.6 01/04/05 IRN–8120 1/C MDB extensions for 4.5.0
—.P–.I–.T–.— froese MDA–ENH–4439 01/04/05 IMDB: Correction of menu calculation
—.P–.I–.T–.— volker GWDU–ENH–20 01/04/04 Adaptation to new Tcl/Tk version
—.P–.I–.T–.— ilenz MDA–ENH–4438 01/04/04 Adapt install_mdb for new consistency
—.P–.I–.T–.— franz CLS–ENH–277 01/04/04 Move enumeration_attributes* from cls/
—.P–.I–.T–.— franz CLS–ENH–276 01/04/02 Scripts + executables

——.P–.I–.T–.— franz CLS–ENH–273 01/03/30 Addition to SPR–9401
——.P–.I–.T–.— ilenz MDA–ENH–4437 01/03/30 update installation scripts for the ne
——.P–.I–.T–.— danne HCI–ENH–245 01/03/29 Set version to 4.5.0
——.P–.I–.T–.— bier MDA–ENH–4436 01/03/29 new consistency checker
——.P–.I–.T–.— svogel CLS–ENH–271 01/03/28 interpreter
——.P–.I–.T–.— ilenz MDA–IRN–8120.5 01/03/28 IRN–8120 1/C MDB extensions for 4.5.0
——.P–.I–.T–.— froese MDA–ENH–4435 01/03/27 UCL_WDU: Use 'wish' instead of 'wishx'
——.P–.I–.T–.— franz CLS–SPR–7020 01/03/27 No check of existing LIBRARIES availab
——.P–.I–.T–.— athmann GWDU–ENH–18 01/03/26 Correction of Makefile
——.P–.I–.T–.— athmann GWDU–ENH–17 01/03/26 Align GWDU Linking with new TCL/TK Ver
——.P–.I–.T–.— schipper CGSI–IRN–8068 01/03/26 New TCL/TK
——.P–.I–.T–.— danne HCI–SPR–4808 01/03/23 HCI: no identification of HLCL window
——.P–.I–.T–.— danne HCI–SPR–7980 01/03/23 Message in foot not removed
——.P–.I–.T–.— werner TES–IRN–8124.1 01/03/22 GROUND_VALUES, UCL Ground System Libra
——.P–.I–.T–.— ilenz MDA–IRN–8128.4 01/03/22 MDB_UCL: Extensions for 4.5.0
——.P–.I–.T–.— franz CLS–ENH–269 01/03/22 MDB emulation correction
——.P–.I–.T–.— danne HCI–SPR–8737.1 01/03/22 Status Window: Missing "Loading error
——.P–.I–.T–.— ilenz MDA–ENH–4434 01/03/22 new consistency checker
——.P–.I–.T–.— franz CLS–ENH–268 01/03/21 MDB emulation correction
——.P–.I–.T–.— ilenz MDA–IRN–8128.3 01/03/21 MDB_UCL: Extensions for 4.5.0
——.P–.I–.T–.— franz CLS–SPR–9451 01/03/21 UCL: Compiler and HLCL accepting wrong
——.P–.I–.T–.— franz CLS–SPR–9478 01/03/21 UCL Compiler Internal Error
——.P–.I–.T–.— marz TES–ENH–336 01/03/21 SET_SMT – ground_lib procedure
——.P–.I–.T–.— danne HCI–SPR–8893.1 01/03/20 closing archive file does not work
——.P–.I–.T–.— franz CLS–ENH–265 01/03/20 Correction to P_MDB adaptation.
——.P–.I–.T–.— ilenz MDA–IRN–8120.4 01/03/20 IRN–8120 1/C MDB extensions for 4.5.0
——.P–.I–.T–.— ilenz MDA–ENH–4433 01/03/19 Correct MDB_UCL.STORE_ITEM
——.P–.I–.T–.— werner TES–IRN–8124 01/03/19 GROUND_VALUES, UCL Ground System Libra
——.P–.I–.T–.— franz CLS–IRN–8126.2 01/03/16 Adaptation to P_MDB changes for CGS 4.
——.P–.I–.T–.— marz TES–SPR–9465 01/03/16 TES_API procedure call does not return
——.P–.I–.T–.— marz TES–SPR–9492 01/03/16 OOL Window / Derived Parameter
——.P–.I–.T–.— marz TES–IRN–8123 01/03/16 ADT_CCSDS_PACKET: Added operations on
——.P–.I–.T–.— marz TES–ENH–335 01/03/16 remove debug output
——.P–.I–.T–.— svogel CLS–ENH–264 01/03/16 network
——.P–.I–.T–.— marz TES–SPR–7207 01/03/16 WAIT_FOR_ADU does not have Timeout par
——.P–.I–.T–.— ilenz MDA–ENH–4432 01/03/16 Add "grant select any table to" MDB ow
——.P–.I–.T–.— froese MDA–ENH–4431 01/03/16 CSS_IMDB 'clean' label in makefile
——.P–.I–.T–.— froese MDA–ENH–4430 01/03/16 IMDB: Integration of new TclTk version
——.P–.I–.T–.— ilenz MDA–IRN–8128.2 01/03/15 MDB_UCL: Extensions for 4.5.0
——.P–.I–.T–.— marz TES–ENH–334 01/03/14 correct adt_swop_command
——.P–.I–.T–.— grotheer MDA–IRN–8128.1 01/03/14 Extension for CGS 4.5.0
——.P–.I–.T–.— franz CLS–ENH–263 01/03/14 SPR–9401.1
——.P–.I–.T–.— svogel CLS–ENH–262 01/03/14 adapt
——.P–.I–.T–.— ilenz MDA–ENH–4429 01/03/14 Correction in mda/test_procs: COMPARER
——.P–.I–.T–.— ilenz MDA–IRN–8120.3 01/03/13 IRN–8120 1/B MDB extensions for 4.5.0
——.P–.I–.T–.— grotheer MDA–ENH–4428 01/03/13 T_SW_TYPE
——.P–.I–.T–.— ilenz MDA–IRN–8128 01/03/13 MDB_UCL: Extensions for 4.5.0
——.P–.I–.T–.— ilenz MDA–IRN–8127 01/03/13 MPS_UCL: Extensions for 4.5.0
——.P–.I–.T–.— werner CSS–IRN–8126 01/03/13 Modification of package MPS_DEFINITION
——.P–.I–.T–.— athmann MDA–ENH–4427 01/03/13 Another Adaptation to IRN–8126
——.P–.I–.T–.— franz CLS–IRN–8068.1 01/03/12 New TCL/TK
——.P–.I–.T–.— franz CLS–IRN–8126.1 01/03/12 New MPS_DEFINITIONS + NUMERIC_TYPES
——.P–.I–.T–.— athmann MDA–ENH–4426 01/03/12 Adptation to IRN–8126
——.P–.I–.T–.— froese MDA–SPR–9452 01/03/08 I_MDB: creating enditem at max. pathna
——.P–.I–.T–.— froese MDA–SPR–9457 01/03/08 Complete Message hidden in I_MDB windo
——.P–.I–.T–.— froese MDA–ENH–4425 01/03/08 UCL_WDU: Adaptation for the new TclTk

—.P–.I–.T–.— franz CLS–ENH–258 01/03/07 Adaptations to new P_MDB for CGS 4.5
—.P–.I–.T–.— marz TES–ENH–330 01/03/07 correct vcs_adt_gdu_description
—.P–.I–.T–.— ilenz MDA–ENH–4424 01/03/07 Changes because of IRN–8126
—.P–.I–.T–.— marz TES–ENH–329 01/03/07 add timetag for debug output
—.P–.I–.T–.— ilenz MDA–ENH–4423 01/03/06 new consistency checker 2
—.P–.I–.T–.— franz CLS–ENH–256 01/03/06 Correction to CLS–SPR–9433
—.P–.I–.T–.— semrau MDA–SPR–9474 01/03/06 I_MDB: Pages of Scrollable Lists Incon
—.P–.I–.T–.— athmann CGS–SPR–9128.1 01/03/05 VIT Manager hardcoded constraints
—.P–.I–.T–.— athmann CGS–IRN–8126.1 01/03/05 Body for extended MPS_DEFINITIONS
—.P–.I–.T–.— marz TES–ENH–328 01/03/05 report errors in TCL lib
—.P–.I–.T–.— semrau MDA–SPR–9470 01/03/04 I_MDB: Page Size for CCU Browser Canno
—.P–.I–.T–.— semrau MDA–SPR–9469 01/03/04 I_MDB: Filter Problem in CCU Version B
—.P–.I–.T–.— semrau MDA–SPR–9468 01/03/03 I_MDB: Navigation in System Tree Too S
—.P–.I–.T–.— franz CLS–SPR–9401 01/03/02 HCI crash
—.P–.I–.T–.— froese MDA–ENH–4422 01/03/02 Integration of new TclTk version
—.P–.I–.T–.— franz CLS–SPR–9418 01/03/01 GET_APPLICATION_STATUS causes ”Interna
—.P–.I–.T–.— franz CLS–SPR–9433 01/02/28 UCL Compiler: Case statement doesn’t w
—.P–.I–.T–.— franz CLS–ENH–253 01/02/28 MDB emulation update
—.P–.I–.T–.— svogel CLS–ENH–250 01/02/28 interpreter
—.P–.I–.T–.— danne HCI–SPR–8730.1 01/02/27 Overall Healthcheck Synoptic shows une
—.P–.I–.T–.Q– volker CSS–ENH–119 01/02/23 CGS 4.4 for CGS IVQ
—.P–.I–.T–.Q– ilenz MDA–ENH–4421 01/02/23 for cgsivq tree
—.P–.I–.T–.Q– schipper CGSI–ENH–477 01/02/23 Starnge merge for 4.4
—.P–.I–.T–.— grotheer MDA–SPR–8889 01/02/22 ’Generate SCOE Files’ produces corrupt
—.P–.I–.T–.— ilenz MDA–ENH–4420 01/02/22 MDB upgrade: Correct generate_fk_trigg
—.P–.I–.T–.— athmann CGS–IRN–8126 01/02/21 Change MPS–DEFINITIONS/NUMERIC_TYPES f
—.P–.I–.T–.— ilenz MDA–IRN–8120.2 01/02/21 MDB for CGS 4.5: Add upgrade_from_CGS_
—.P–.I–.T–.— franz CLS–ENH–246 01/02/20 Tools update
—.P–.I–.T–.— ilenz MDA–ENH–4419 01/02/20 MDB upgrade: Add CGS_MDB_V4_3_0_to_CGS
—.P–.I–.T–.— danne HCI–SPR–7327 01/02/19 HCI can’t connect to TES
—.P–.I–.T–.— ilenz MDA–ENH–4418 01/02/19 Correct sid_path_tbl_trg.sql
—.P–.I–.T–.— ilenz MDA–ENH–4417 01/02/19 Correct cp_mda_mdb
—.P–.I–.T–.— ilenz MDA–IRN–8120.1 01/02/19 MDB for CGS 4.5: Correction for new CC
—.P–.I–.T–.— franz CLS–ENH–245 01/02/16 Tools correction
—.P–.I–.T–.— ilenz MDA–ENH–4416 01/02/16 correction for new CC
—.P–.I–.T–.— ilenz MDA–ENH–4415 01/02/16 package CC_CGS for the new CC
—.P–.I–.T–.— ilenz MDA–ENH–4414 01/02/16 Change TR_UPD– and TR_DEL_USER_TREE_NO
—.P–.I–.T–.— schipper CGSI–SPR–9342 01/02/16 install_mdb sets a trap for the user
—.P–.I–.T–.— ilenz MDA–IRN–8120 01/02/15 MDB for CGS 4.5
—.P–.I–.T–.— froese MDA–ENH–4413 01/02/15 IMDB: Changes for new CC implementatio
—.P–.I–.T–.— froese MDA–ENH–4412 01/02/15 PNS: Changes for new TclTk version
—.P–.I–.T–.Q– franz CLS–ENH–241 01/02/15 Tools update
—.P–.I–.T–.Q– werner DBS–SPR–9218 01/02/15 TES lost connection to DBS
—.P–.I–.T–.Q– werner DBS–SPR–9234 01/02/15 CONVERSION_ERROR during HCI startup
—.P–.I–.T–.— froese MDA–ENH–4411 01/02/15 CC: Correction_1
—.P–.I–.T–.— froese MDA–ENH–4410 01/02/15 CC: Delivery of new implementation
—.P–.I–.T–.Q– schipper CGSI–SPR–9025 01/02/14 No home directory for additional scrip
—.P–.I–.T–.Q– svogel CLS–ENH–238 01/02/14 debugger
—.P–.I–.T–.Q– edvin CLS–ENH–237 01/02/14 Tools update
—.P–.I–.T–.Q– danne HCI–SPR–8510.1 01/02/13 Status in synoptic is REQUESTED althou
—.P–.I–.T–.Q– franz CLS–ENH–232 01/02/13 MDB emulation update
—.P–.I–.T–.— ilenz MDA–SPR–9224.1 01/02/13 BDE partial bde_load (aggregate based)
—.P–.I–.T–.Q– edvin CLS–ENH–229 01/02/12 Tool update (mdb)
—.P–.I–.T–.Q– edvin CLS–ENH–227 01/02/09 Provide hlcl and generate
—.P–.I–.T–.Q– edvin CLS–ENH–225 01/02/09 mdb_tree
—.P–.I–.T–.Q– marz TES–ENH–308 01/02/08 debug output for messages

——.P–.I–.T–.Q– athmann CGS–SPR–9288 01/02/08 File_IO–SAS: Get_Line problem: works o
——.P–.I–.T–.Q– adt_3 TSCV–SPR–6568.2 01/02/08 FA SAS Usage Problem
——.P–.I–.T–.Q– danne HCI–SPR–9214 01/02/07 HCI crash during execution of 24h Test
——.P–.I–.T–.Q– franz CLS–SPR–9264 01/02/06 HLCL rejects string assignement
——.P–.I–.T–.Q– marz TES–ENH–305 01/02/06 Rerelocate between Vobs
——.P–.I–.T–.Q– franz CLS–SPR–9045 01/02/06 Comparison of Pathname \\ failed
——.P–.I–.T–.Q– franz CLS–ENH–217 01/02/05 Remove X_EXTENSION in cls/debugger
——.P–.I–.T–.Q– adt_3 HCI–ENH–220 01/02/02 Improvement of Monitioring/Gonogo Wind
——.P–.I–.T–.Q– franz CLS–ENH–207 01/01/30 MDB emulation: time stamp files in ASC
——.P–.I–.T–.Q– franz CLS–ENH–206 01/01/30 Shell based on POSIX only
——.P–.I–.T–.Q– danne HCI–ENH–219 01/01/30 Bug fix in Data_Distributor.Modify_Del
——.P–.I–.T–.Q– adt_3 HCI–SPR–9213 01/01/29 Opening Monitoring Window: HCI crashed
——.P–.I–.T–.Q– marz TES–SPR–8924.1 01/01/26 Call to System Library routine DELAY r
——.P–.I–.T–.Q– marz TES–SPR–8561.2 01/01/26 Timeout error message is displayed twi
——.P–.I–.T–.Q– marz TES–SPR–5698.1 01/01/26 CLS: Incorrect Call of Ground–Library.
——.P–.I–.T–.Q– danne HCI–ENH–218 01/01/25 Bug fix: data_distributor
——.P–.I–.T–.Q– adt_3 HCI–ENH–217 01/01/25 Monitoring Window
——.P–.I–.T–.Q– danne HCI–ENH–216 01/01/25 Bug fix: Parent_Client_Data not set fo
——.P–.I–.T–.Q– svogel CLS–ENH–202 01/01/25 dms emulator V2
——.P–.I–.T–.Q– ilenz MDA–SPR–8942.1 01/01/24 Wrong error msg: Point pairs describe
——.P–.I–.T–.Q– franz CLS–ENH–199 01/01/23 Tools update
——.P–.I–.T–.Q– danne HCI–SPR–9156.1 01/01/22 Monitoring Window does not work with 1
——.P–.I–.T–.Q– danne HCI–SPR–9156 01/01/22 Monitoring Window does not work with 1
——.P–.I–.T–.Q– franz CLS–SPR–9160 01/01/22 CGS/CLS: CLS_OBJECT_TABLE.GET_ONBOARD
——.P–.I–.T–.Q– franz CLS–ENH–197 01/01/22 New Shell package
——.P–.I–.T–.Q– adt_3 HCI–ENH–214 01/01/22 Monitoring Window
——.P–.I–.T–.Q– svogel CLS–ENH–194 01/01/22 mdb iterate
——.P–.I–.T–.Q– franz CLS–ENH–193 01/01/22 New Shell package
——.P–.I–.T–.Q– svogel CLS–ENH–192 01/01/22 mdb tool iterator
——.P–.I–.T–.Q– danne HCI–ENH–213 01/01/22 pdb w/a: make public 4.3 visible to cg
——.P–.I–.T–.— froese MDA–ENH–4409 01/01/19 DDED: Changes for TclTk 7.5.2 to TclTk
——.P–.I–.T–.Q– danne HCI–ENH–212 01/01/19 Make debug files visible for preinst/c
——.P–.I–.T–.— schipper CGSI–ENH–445 01/01/16 TclTk for MDA CC, MDA FF etc.
——.P–.I–.T–.Q– semrau CLS–ENH–190 01/01/15 UCL Debugger Upgrade
——.P–.I–.T–.Q– danne HCI–ENH–209 01/01/15 Debug support: synoptics from file.

3 Documents

3.1 Installation Manuals

COL–RIBRE–MA–0025:	CGS Installation Manual, Issue 4/H, 21.06.2001

3.2 User Manuals

COL–RIBRE–MA–0028:	CGS User Manual, Issue 2/M, 30.05.2001
COL–RIBRE–MA–0030–00	MDA Introduction Manual, Issue 3/B 4.4.1997
COL–RIBRE–MA–0031–00	MDA Reference Manual, Issue 4/D 26.06.2001
COL–RIBRE–MA–0018–00	MDA Administration Manual, Issue 4/B 31.03.2000
COL–RIBRE–MA–0037–00	DADIMA Introduction Manual, Issue 3/– 4.4.1997
COL–RIBRE–MA–0032–00	DADIMA Reference Manual, Issue 4/– 1.9.1997
COL–RIBRE–MA–0036–00	DADIMA Administration Manual, Issue 4/– 1.9.1997
COL–RIBRE–MA–0032–00	SID Range Tool Users and Operations Manual, Issue 1/– 15.09.1997
UM–114–001–ROV	GWDU User's Manual and Operations Manual, Issue 1.4 , 1999
UM–114–002–ROV	FWDU User's Manual Manual, Issue 2.1 ,1999

3.3 Reference Manuals

COL–RIBRE–STD–0010	User Control Language (UCL) Reference Manual, Issue 4/A, 21.01.2001
COL–RIBRE–STD–0009	High Level Command Language (HLCL) Reference Manual, Issue 2/B 29.09.2000
COL–RIBRE–STD–0008	Reference Manual for Crew Procedure Language and Software, Commanding, Issue 1/E, 1998

3.4 Requirements Specifications

COL–RIBRE–SPE–0032	Columbus Ground System (CGS) Requirements Specification, Issue 6/C, 31.3.1999

3.5 Design Documentation

COL–RIBRE–ADD–0006	Columbus Ground System (CGS) Software Architectural Design Document, Issue 4/B, 30.10.1998

3.6 Interface Definitions

COL–RIBRE–ICD–0069–00 MDB Standard Entities and Application Program Interface, Issue 4/B, 31.08.2000

+ IRNs

COL–RIBRE–IRN–CGS–8068 Issue 1/C	Commercial Baseline Update:VADS 6.2.3.d / TCLTK
COL–RIBRE–IRN–CGS–8096 Issue 1/B	TES_API: Add overlayed acknowledge procedure
COL–RIBRE–IRN–CGS–8100 Issue 1/C	SWEU/SWRU Load Interface
COL–RIBRE–IRN–CGS–8105 Issue 1/B	UCL System Library Extensions/Updates
COL–RIBRE–IRN–CGS–8109 Issue 1/–	CALIBRATION:discrete ranges/256 statecodes
COL–RIBRE–IRN–CGS–8110 Issue 1/–	ADT_GDU_DESCR: critical command
COL–RIBRE–IRN–CGS–8114 Issue 1/–	ADT_PACKET_RESULT
COL–RIBRE–IRN–CGS–8115 Issue 1/–	ADT_EVENT_RESULT
COL–RIBRE–IRN–CGS–8117 Issue 1/–	ADT_DBS_TO_SAS_COMMAND
COL–RIBRE–IRN–CGS–8118 Issue 1/–	add HK for LT_SYNC_STATUS
COL–RIBRE–IRN–CGS–8119 Issue 1/–	Interface CSS/CMAS for COF Trainer
COL–RIBRE–IRN–CGS–8121 Issue 1/B	UCL Ground Cmd to OB Library
COL–RIBRE–IRN–CGS–8122 Issue 1/–	New SWES Home
COL–RIBRE–IRN–CGS–8123 Issue 1/–	ADT_CCSDS_PACKET
COL–RIBRE–IRN–CGS–8124 Issue 1/–	New UCL Lib: GROUND_VALUES
COL–RIBRE–IRN–CGS–8125 Issue 1/–	Cshrc
COL–RIBRE–IRN–CGS–8126 Issue 1/–	MPS_DEFINITIONS
COL–RIBRE–IRN–CGS–8129 Issue 1/–	ADT_GDU_DESCRIPTION
COL–RIBRE–IRN–CGS–8130 Issue 1/–	OPCODES as part of CGS_API
COL–RIBRE–IRN–CGS–8131 Issue 1/–	CSS/CMAS Interface: MODEL_CONNECTION

COL–RIBRE–ICD–0025–00 System to CGS ICD, 4/B, 31.08.2000

+ IRNs:

COL–RIBRE–IRN–CGS–8107 Issue 1/A	MDB Extensions for CGS 4.4.0
COL–RIBRE–IRN–CGS–8120 Issue 1/D	MDB Extensions for CGS 4.5.0

4 Installation of the CGS Delivery

4.1 Installation

The installation is to be performed for a full CGS system installation, see CGS Installation Manual

5 Post Installation Steps

5.1 MDB Updates

Refer to CGS Installation Manual.

5.2 Install New UCL Libraries / Recompile APs

5.2.1 UCL System Libraries

The **GROUND_LIBRARY** has been updated in this delivery (refer to COL–RIBRE–IRN–8068). The source code of the library is delivered as UNIX file under $CGS_HOME/config. It has to be replaced in the MDB at all locations, where the onboard library exists. Subsequent compilation of all libraries/APs referencing the library is needed.

The following operations are new since CGS 4.3.1 (Changes in 4.5.0 indicated by changebar):

- SET_CCSDS_APID
- SET_DEFAULT_WORKSTATION
- START_SMT_WITH_OFFSET
- SET_SMT

The following operations have **changed parameter profile**:

- WRITE_MESSAGE_TO_USER
- READ_NUMBER_FROM_USER
- READ_MESSAGE_FROM_USER
- DISPLAY_PICTURE
- WAIT_FOR_ADU

The **GROUND_CMD_TO_OB_LIB** has been updated in this delivery (refer to COL–RIBRE–IRN–8121). The source code of the library is delivered as UNIX file under $CGS_HOME/config. It has to be replaced in the MDB at all locations, where the onboard library exists. Subsequent compilation of all libraries/APs referencing the library is needed.

Note: The library was changed (as temporary fix) within COL already in CGS_4.3.1 installations.

A new Library **GROUND_VALUES** has been included in CGS_4.5.0.

The library provides operations to decalibrate a engineering value to a raw value. Refer to COL–RIBRE–IRN–CGS–8124 and see below.

Library Replacement

The source code for the new version of the libraries must be installed in the database (MDB) and replace any old version of the Library.

As the Library may exist in different locations in your database, it is necessary to search for all locations and replace it everywhere within the MDB. To achieve this, perform the following steps:

1. Start I_MDB Navigator (“Test Preparation” in CGS Task Selector).
2. For each element configuration the following steps shall be done:
3. For each system tree version the following steps shall be repeated as well:
4. In those cases where the Library is part of a frozen CDU, you will have to create a new CDU version first (otherwise the library would be read–only and thus could not be updated). Remember to specify the latest old version of the CDU in the “Copy from CDU Version” field of the “Create new CDU version” window.
5. In those cases where the library has not been frozen, simply replace the old source code by the new, as described below.
6. Navigate to the library end item. You may want to use the File→Direct End Item Access search facility of I_MDB to locate all libraries within a CDU automatically: Simply type UCL_SYSTEM_LIBRARY into the “End Item Type” field of the “Direct End Item Access” window and click on Search & Edit. The Items list in the lower half of the window then displays all UCL System Libraries in the currently open CDU.
7. Start the CLS Editor by using the “UCL Compiler & Editor...” menu point from the pop–up menu that is displayed after pressing the right mouse button on the library end item.
8. In the CLS Editor, delete the old source code: Click four times (fast) on the source code window pane. This should select the whole source code. (Alternatively: Select first part of source code, scroll to end of the source code and select all with right mouse button). Then press the Cut key or use Edit→Cut from the editor’s pop–up menu.
9. Insert the new source code via File→Include File... pop–up menu point: In the “Text:Include” window enter:

```
Directory: $GSAF_HOME/cgs/config
     File: ground_library_.ucl
     resp. File: ground_values_.ucl
```

10. Now click on the “Include File” button. The new source code is then loaded into the CLS Editor. Then click on Command→Compile button.
11. N/A: For UCL User Library, switch to ’body’ and perform step 9 and 10 for the file

    ```
    Directory: $GSAF_HOME/cgs/config
         File: N/A
    ```

12. After the compilation of the library is finished, click on the Command→Store button of the CLS Editor
13. Quit the CLS Editor.
14. In those cases where the library was part of a frozen CDU: All your CCUs that reference the old CDU need to be changed as well: They should now reference the newly created CDU instead of referencing the old obsolete one. Replace these references now using I_MDB. If the CCUs are frozen, you have to create new CCU versions first.
15. Re–compile all your APs that reference the new system libraries. If your APs are part of a frozen CDU, you will have to copy them into a new CDU version in advance. Otherwise you will not be able to store your recompiled code into the database.
16. Repeat the above steps for all system tree versions.
17. Repeat the above steps for all element configurations.
18. Exit I_MDB.
19. Logout.

Adaptation & Recompilation

First, some Automated Procedures might need adaptation to the changed parameter profiles of some Ground Library procedures (see above).To adapt changes to the new parameter profile of some library procedures, the Add–on–tool (CLS tool) “format” may be used . This tool allows to reformat all calls to procedures in a way, that named parameters are used instead of positioned parameters; e.g. a call `PROC(A,B,C);` is reformatted to `PROC(PAR1:a; PAR2:B; PAR3:C);`. Because all new parameters of the updated profiles have default values, the calls to these procedures are OK in case they are in the named format.

Then, all APs and Libraries refering to the a.m. updated libraries need to be recompiled.

5.3 Generate SCOE Files

To activate changes in the generation of SCOE files recreate the SCOE files of all CCU with the MDB. Therefore perform following steps:

1. Start I_MDB Navigator (“Test Preparation” in CGS Task Selector).
2. For each element configuration the following steps shall be done:
3. For each system tree version the following steps shall be repeated as well:
4. select the CCU version and navigate to each enditem of type EGSE_TEST_CONFIGURATION. To simplify this work use the ”File”–>“Direct End Item Access” window, enter the enditem type EGSE_TEST_CONFIGURATION and press the ”Search&Edit” button. All enditem within this CCU of the given type will be listed in the lower part of the window.
5. select the enditems which are used to start the test configuration one by one and select from the pull down menu (with right mouse button) ”Tools”–>”Generate Scoe Files...”. The ”LoadSCOE” progress window will apear. Wait until the generation is finished, than press the ”Close” button.
6. Repeat the above steps, beginning with step 3 for all system tree versions.
7. Repeat the above steps, beginning with step 2 for all element configurations.
8. Exit I_MDB.

5.4 Recompile SAS

The CGS_API has been extended. Especially the underlying Communication Software has been modified. To ensure correct working of the SAS using the CGS_API, all SAS using the **TES_API are required to be recompiled** using the CGS_API delivered with this patch. Refer to CGS Installation Manual.

Also, some changes have been made to the **TEV_API.** Programs using the TEV_API might need recompilation.

After installation, the CGS_API library **for Sun** needs to be recompiled. For installation and recompilation procedure refer to CGS Installation Manual, Issue 4/F, ch. 7. Afterwards, the SAS can be recompiled.

6 Known Bugs and Workarounds

This chapter lists the major known bugs, limitations and problems in CGS_V4.5.0 It also supplies workarounds for some of the known problems.

6.1 List of open SPRs

(Refer to attachment 1)

6.2 Workarounds

[1] COL–RIBRE–SPR–3033
CGS: Oracle long raw retrieval problem

Description:

Oracle version: 7.3.2.1, Pro*Ada 1.8.2.0.0, Solaris 2.5

In case a record is retrieved from the database that contains a colmn of type 'long raw', the retrieve fails and know data is returns. This applies e.g. for i–code in the MDB.

The problem was isolated in a small test program and forwarded and reproduced by oracle. Oracle investigates if a patch is available.

Debug session at DASA found the problem in the oracle runtime library. The file sqatyb.ada has to be changed as follows:

change line 255:

from
```
   return(oracle.to_c_pointer(hva));
```
to :
```
   return(oracle.c_pointer_to(hv));
```

to fix the problem (temporary workaround).

Workaround:

A patch has been developped at DASA (A.Schulz) to overcome the problem. The patch is called "Varraw" and has been inserted into the PDB at DASA.

Steps to apply the patch:
———————————

1. Save old copy of sqatyb.ada

```
% cd $ORACLE_HOME/precomp/pubsrc/adalib
% cp –p sqatyb.ada sqatyb.ada_pre_varraw
```

2. Copy new sqatyb.ada to your adalib directory

```
% cp –p <patch_dir>/sqatyb.ada $ORACLE_HOME/precomp/pubsrc/adalib
```

3. Rebuild adalib

```
% cd $ORACLE_HOME/precomp/pubsrc/adalib
% make –f ins_precomp.mk clean
% make –f ins_precomp.mk compile
```

4. Relink your Ada application program(s) if you have any

[2] COL–RIBRE–SPR–4482
CGS: visible point in field name of Create user tree node

Description:

when entering a value in window Create user tree node in
field name a point at the beginning of the field
is visible.

Workaround:

A dot is sometimes displayed by XVIEWS at places, where it is not expected.

Dot is to be ignored.

[3] COL–RIBRE–SPR–6067
CGS: SWES precompilation syntax not documented.

Description:

There is no SDDF user documentation describing what functions are supported
by the SWES precompiler tool and what are not supported.
It is not described neither in CGS nor in SDE user manuals.
Moreover, the syntax expected by the SWES precompiler to convert MDB
pathnames in MDB SIDs or constants is not described too.

Workaround:

A technical note document from CRI (now TERMA) has been circulating
containing some information about SWES precompilation. It is identified as
”CSD/PRJ/COL/SPEC/19” Issue 1.0 Date July 21, 1995.
This document is not exhaustive for SDDF users, because for instance it
misses the syntax to be used, and it isn’t an SDDF deliverable document.
Copy of this document may be informally sent upon request from users.

[4] COL–RIBRE–SPR–7066
CGS: Starting of HLCL windows cannot be prohibited to some users

Description:

In the Crew Trainer project (as in other projects), there are different
types of users. Some of them are allowed to control the test unit, some may
only observe the test progress. Up to now, there seems to be no way in HCI
to restrict the starting of HLCL command windows to a subset of the CGS
users.

Workaround:

As described in CGS User Manual, section 7.1.2.2:

When setting privilege to IS_TEST_EVALUATOR (in USER_PROFILES), the user is
prohibited from commanding the test nodes or setting S/W variables.

E.g. when trying to start an AP, Online Test Control (HCI) displays an
error:

HLCL: \eureca\egse\subsystem\control\move_switches
Error in starting \EURECA\EGSE\SUBSYSTEM\CONTROL\MOVE_SWITCHES on node \EURECA\EGSE\TOPOLOGY\CONFIGURATION\NODE_LIST\TEST_NODE_01:
Command rejected, permission denied!

The user is only able to execute local HLCL commands like printing a file, displaying a synoptic.

[5] COL–RIBRE–SPR–7678
CGS: max(real) out of bounds in cls_editor

Description:

The HLCL sequence:

sequence hlcl_sequ_in2 (in rea: real := max(real));
end hlcl_sequ_in2;

leads during the store operation (after successful compile) to an oracle error:

————————————————report from MDB_UCL————————————————
ERROR
SID : 551934 CDU_VERSION : 502810
Path : \EURECA\EGSE\TEST\CLS_TEST\HLCL\SPR\MAX_REAL
Inside sub–program : INSERT_REAL_VALUE
Inside sub–program : INSERT_REAL_VALUE raised ORACLE_ERROR
F_VALUE in T_DEFAULT_REAL_VALUE ORA–02290: check constraint (.) violated
Re–raising MPS_DEFINITIONS.ORACLE_ERROR
——

————————————————report from MDB_UCL————————————————
ERROR
SID : 551934 CDU_VERSION : 502810
Path : \EURECA\EGSE\TEST\CLS_TEST\HLCL\SPR\MAX_REAL
Inside sub–program : raised ORACLE_ERROR
ORA–00000: normal, successful completion
Re–raising MPS_DEFINITIONS.ORACLE_ERROR
——

A change of the expression max(real) by the HLCL command window output:

HLCL: put(max(real))
3.40282346638529E+038

sequence hlcl_sequ_in2 (in rea: real := 3.40282346638529E+038);
end hlcl_sequ_in2;

leads to compile error: Value out of bounds.

Workaround:

As the problem is due to different definitions of MAX_FLOAT in the systems involved (CGS/Ada+C: 3.402823466E+38, MDB: 3.404282E+38). Therefore, do not use values higher than 3.404282E+38.

[6] COL–RIBRE–SPR–7739
CGS: I–Code Size limited to 32k

Description:

The size of the i–Code created by the CLS–Editor seems to be limited to 32 kbytes. This is not acceptable for DSS.

Workaround:

To limit the size of I–Code, the following can be done:

a) Split into several APs:
Write lower level APs which perform parts of this AP

b) Put Procedures into UCL User Libraries

c) Optimise Source Code
(e.g. Put things which are identical or similar into procedures/functions)

d) Use HLCL Sequences instead of AP

e) Where APs are written to calculate values from other values:
use new feature ”Derived Value” (in CGS_4.3.0)

[7] COL–RIBRE–SPR–8125
CGS: HLCL Command Window – Return Status

Description:

When entering an HLCL command the return staus is displayed in the command window as integer number. The user has to investigate in the ground system library (using the CLS editor) what’s the meaning of this number or the user has to know the ground library procedure to convert the number into the corresponding text or the user has to look into the documentation (SUM, CGS ICD). Today this is an example for a not user friendly MMI.

Workaround:

In the UCL GROUND_LIBRARY, a constant STATUS_STRING has been defined to allow conversion of Status Codes into readable text.

In HLCL use PUT STATUS_STRING(<return_code>) .

In UCL_APs, the readable text might be sent to the workstation:

WRITE_MESSAGE_TO_USER(STATUS_STRING(<return_code>));

[8] COL–RIBRE–SPR–9219
CGS: ANCILLARY_DATA Data Type

Description:

The ANCILLARY_DATA Data Type defines the Data Items with Ancillary Name and Coverage Value. The Start Time of Coverage, Non_Coverage is not definable.

Workaround:

Use DDED for editing this field: format e.g. 17–JUN–2000 19:10:59

[9] COL–RIBRE–SPR–9629
CGS: Start FA_SAS from TEV results in system error

Description:

Start FA_SAS in TEV Import/Export or Final Archive Tool results in a message window:
WARNING : System error
DBS Error Status: DBS_INTERNAL_PROBLEM

In console window:
INSTANCE[1]: Exception occured in NW_SEND: storage_error

In message handler window:
(”apmws3”,
22113,
1,
”*”,
”*”,
”DBS_INT_PROBLEM”,
”SEVERE”,
”ACK_NOT_REQUIRED”,
”LOG_AND_DISPLAY”,
”29.03.2001 15:16:28”,
”VICOS”,
”TEV_03”,
”TRDB”,
”Error in LO_SE_MGT.EX_SES.START_FA_SAS.”,
”GET_FA_INFO returns STATUS = DBS_COMMUNICATION_PROBLEM”,
”Cannot get FA information. Consequence: FA SAS may not be started. Recovery act: None. Debug info: START_FA_SAS in LOCAL_SESSION_MANAGEMENT (E_START_FA_SAS_01)”);

Start of FA_SAS in TSCV for automatic FA is okay.

Workaround:

The 2 missing configuration parameters have been directly introduced in the file at the site and the ”start FA SAS” was successfull.

[10] COL–RIBRE–SPR–4439
CGSI: proada is hanging

Description:

Precompilation of dbs_ma_logged_data_file.pad with proada from Oracle 7.3.2 does not terminate. The file is correctly precompiled with an older version of proada (i.e. sunOS version).

This problem has been experienced at Spacebel for several months and is experienced at DASA now.

The UNIX utility ”truss” on proada shows:

```
...
sigaction(SIGCLD, 0xEFFF6428, 0xEFFF64A8) = 0
setcontext(0xEFFF6678)
Received signal #18, SIGCLD [caught]
sigaction(SIGCLD, 0xEFFF6428, 0xEFFF64A8) = 0
setcontext(0xEFFF6678)
Received signal #18, SIGCLD [caught]
sigaction(SIGCLD, 0xEFFF6428, 0xEFFF64A8) = 0
setcontext(0xEFFF6678)
Received signal #18, SIGCLD [caught]
sigaction(SIGCLD, 0xEFFF6428, 0xEFFF64A8) = 0
setcontext(0xEFFF6678)
Received signal #18, SIGCLD [caught]
sigaction(SIGCLD, 0xEFFF6428, 0xEFFF64A8) = 0
setcontext(0xEFFF6678)
Received signal #18, SIGCLD [caught]
sigaction(SIGCLD, 0xEFFF6428, 0xEFFF64A8) = 0
setcontext(0xEFFF6678)
Received signal #18, SIGCLD [caught]
...
```

an the UNIX command ”ps –edaf” shows

```
...
adt_3 5372 5371 99 12:40:30 pts/8 3:03 proada sqlcheck=full ireclen=200
oreclen=132 select_error=no dbms=V7 iname=test
oracle 5373 5372 0 0:01 <defunct>
oracle 5384 5372 0 12:40:52 ? 0:01 oracle
(DESCRIPTION=(LOCAL=YES)(ADDRESS=(PROTOCOL=beq)))
a
...
```

Note that this problem occurs often but not always.

Workaround:

To overcome the problem, the Pro*Ada Version for Oracle 6 can be used. The compiled result can then be further compiled with the nominal CGS 4.1.0 development environment.

[11] COL–RIBRE–SPR–4615
CGSI: HCI blocked when using find function in HLCL window

Description:

When searching for a string within the HLCL window using the FIND function from the window popup menu (search sometimes forward/backward) all HCI windows are blocked. The CPU load was 100%. No HCI window was updated.

No messages were given.

Workaround:

Do not use ”find” in HLCL window

[12] COL–RIBRE–SPR–7346
CGSI: Message Handler: Missing Columns AP–Name, AP–ID

Description:

It is not possible to separate messages sent from different APs. DSS would like to have an output window for each AP. With additional colums in the message handler (AP Name, Link ID), several message handlers could be started with different settings. Furthermore the information which AP has sent the message would be also very useful, if only one message handler is used.

Workaround:

To generate AP–specific message reports, the following is provided in CGS:

a) Use the FILE_IO SAS to generate a report in a file. Refer to CGS SUM on how to use the SAS.

b) Use the LOG statement to put messages to into the event log.
Use a unique Identification Text within the messages for each AP
Use TEV to select the messages for the specific AP to generate the AP–specific report

To generate an AP specific online display of messages, use a set of enditems of type EGSE_BYTESTREAM_SW_VARIABLE for each AP. Write messages into these enditems (via assignment, e.g. \a\b\c_1 := ”message”;) in a cyclic way. Use a synoptic per AP to display the software variables.

[13] COL–RIBRE–SPR–5876
CLS: BITSET Range Problem

Description:

type bitset is defined as

type bitset = set of integer (0..31);

However the following assignment in the HLCL window fails:

```
var z: integer := integer({31})
————————————————————^
```
Expression out of range

Workaround:

To convert a BITSET to an INTEGER, use the following function:

```
FUNCTION bitset_to_integer (b: bitset): integer;
BEGIN
RETURN integer(b–{31})+min(integer)*integer({31} in b);
END bitset_to_integer;
```

[14] COL–RIBRE–SPR–7358
CLS: Enhancement: CLS backup functionality

Description:

There is no (automatic) possibility to store former versions of an AP or an UCL User library. DSS proposes to store the source code also in the Unix file system. The directory where the backup files are created could be specified in a command line switch of the CLS Editor. The filename could be the name of the AP with a time tag extension.

Workaround:

Use storage in files (”File –> Save As” function in CLS–Editor) to store individual backups of UCL Source Code items

[15] COL–RIBRE–SPR–6953
CSS: CSS: ICP does not allow to access on–board items

Description:

Although MDE allows to bind on–board items (commands and measurements) to function block inputs and outputs, the ICP does not allow to access these on–board items, e. g. to read the value of a measurement.

This would be a great help to FLAP developers who usually think in terms of on–baord items, not of inputs and outputs in function blocks of a model. Moreover,

Workaround:

To get mapping from model interface to referenced onboard items, open simulation observer resp. model inspector window in parallel and select corresponding interface items to get referenced onboard item information.

[16] COL–RIBRE–SPR–8002
CSS: Syntax error in generated HLCL sequence

Description:

During reggression test of CGS V4.3.0 the following is observed:

The generated HLCL sequence has syntactical errors. Some of the engineering untits are enclosed in [[instead of [(see attached sequence).

A test description is givenb in AIV–Notes of SPR–7210.

Workaround:

To remove extra square brackets from engineering unit definitions in old (pre–CGS 4.0) CSS model sources :
– In CSS Database Browser: Export model to file system
– Copy file system path from exported model's properties
– in shell tool : cd <paste copied model's file system path>
– cd user_def
– edit the file named source and replace all occurrences of the two–character sequences "'[" and "]'" (i.e. tick–bracket and vice versa) by "'" (tick).

NOTE: the "'" – characters are significant, in order to restrict the replacement to the unit definitions for FB I/O items.

mv source source.old;sed –e s/\'\\\[/\'/g\;s/\\\]\'/\'/g < source.old > source

– In CSS Database Browser: Import model with changed source from file system to database.

[17] COL–RIBRE–SPR–8005
CSS: Monitoring tables etc. lost with each delivery of SIMM

Description:

1. Each time an APM SIMM is delivered, previously developed monitoring tables, logging tables and state vectors are lost.

2. If monitoring/logging tables and statevectors are developed for a model they cannot be stored unless the model CDU is set into status 'development'.

The common cause of these problems is, that development products of the integration and test team or the instructor team (tables, statevectors) and development products of the SIMM development team (APM SIMM) are stored in the same CDU, which can only be provided and maintained by ONE development product source.

Workaround:

From Report:

use copy / paste of the CSS database browser to add simulation tables into a new model releas

[18] COL–RIBRE–SPR–5264
FWDU: FWDU: Problem with Select List DFD

Description:

If for a Select List DFD the option "Add Buttons?" is set to YES (which is

the default) the expected buttons OK and CANCEL are not displayed (neither using ”View DFDs” nor ”Preview” command).

To the contrary, this works with the commercial Sammi 3.0.12.

Workaround:

The buttons can almost not be seen but the top of the button (maybe the bottom of it) can be seen in the bottom of the listbox window. It is only one or two pixel high. Click on this to press the buttons.

[19] COL–RIBRE–SPR–6908
FWDU: FWDU: Error message while editing Selection List, type Standard

Description:

While testing the fix of SPR 5250–001, it was noticed that messages are sometimes displayed the first time a selection List of type Standard is edited.
The Message_popup window shows the following:

>do_font: Incorrect Font Name Entered.
>do_font: Incorrect Font Name Entered.

The window disappears after pressing the ”Continue”–button.

The messages do not impact the functionality.
Recommended solution: Work–around: Just press continue.

Workaround:

Edited by: Doris Carl

Press ”Continue” button after message pop up window appears.
Go on with next working step. The message has no influence on FWDU functionality.

[20] COL–RIBRE–SPR–8165
GWDU: GWDU: Synoptic Previewer Failure

Description:

This is a new problem onserved in 4.3: The GWDU Synoptic Previewer frequently crashes with the following behaviour: The Synoptic Picture becomes black and the previewer control buttons (start, stop) become grey. After 2–3 seconds the windows (Previewer and GWDU Editor) vanishe. Sometimes it is afterwards not posssible to re–open the synoptic picture before rebooting the database server (GWDU starts but picture remains pale, Editor has to be killed).
The output of ’Check_MDB_Item’ is attached to this SPR.

Workaround:

From SPA–A:

To display integer values in a digits graph, the best solution is to not specify a C format at all, an alternative may be to display an integer value as a float (e.g. conversion character %f). To clear the C format, delete the digits graph and create a new one.

[21] COL–RIBRE–SPR–8182
GWDU: Label of Popup Menu Element unintentionally changed

Description:

The following actions change (insert a blank) the label of a popup–menu:

1. Edit an existing popup–menu which has no label
2. leave the input element editor (press ’accept’) without having edited the label
3. A blank (which is displayed black)has been inserted to the input button element

Workaround: Before leaving the input editor window, delete the (invisible) blank in the label box.

Workaround:

From SPR:
Before leaving the input editor window, delete the (invisible) blank in the label box.

[22] COL–RIBRE–SPR–9382
GWDU: GWDU crashes on ULTRA10/Creator3D machine

Description:

GWDU started remote (setenv DISPLAY=...) with display on Sun ULTRA10 with Creator 3D graphic adapter.
The GWDU comes up with the nominal screen layout plus an additional window in the middle of the GWDU window titled: ”PaletteExposeCB”. Then, three error messages are generated to the console as follows:
<severe>: Can’t open the file.
VIfopen: emptyBW.v
<severe>: Can’t open the file.
VIfopen: emptyBW.v

The color palette initially comes up blank, with title line ’Index xxx’.
To get the normal palette, the editor window has to be e.g. has to be put into background and then back into the front again.

In addition, during editing a synoptic, the GWDU editor occasionally crashes with ’segmentation fault–core dumped’ for no apparent reason when pressing ’Accept’ after editing a display element.
Stack trace from core dump follows:

Core was generated by ‘/gsaf/gwdu/bin/sun5/GWDU CCU 60000014 60006656 WDU_GROUND_SYNOPTIC_DISPLAY svfb’.
Program terminated with signal 9, Killed.
(gdb) where
#0 0x2f80d8 in VGdgdfarg_value ()

#1 0x94d74 in CloseDgEditCB ()
#2 0x39ae00 in ActivateCommon ()
#3 0x497388 in HandleActions ()
#4 0x497ec8 in _XtTranslateEvent ()
#5 0x47b85c in DispatchEvent ()
#6 0x47bf2c in DecideToDispatch ()
#7 0x47bffc in XtDispatchEvent ()
#8 0x47c324 in XtAppMainLoop ()
#9 0x101900 in main ()

Workaround:

Do not start GWDU on the mashine where GWDU is displayed together with the Netscape Communicator!
Before starting the the GWDU, quit all Netscape Communicator processes/tools. The same is valid for the acrobat reader version 3 and 4.

[23] COL–RIBRE–SPR–7056
HCI: HLCL Code running in Syn.Display is not interruptable

Description:

A HLCL command window allows the user to control the execution of the active HLCL sequence (cmds: suspend/resume/cancel).
The same functionality doesn't work when the same HLCL sequence is executed in a Synoptic Display.

Workaround:

Possible workarounds:

1) Implement HLCL code as UCL AP and start it on a test node. This will be interruptable by abort_ap command.
(This cannot be done, however, for HLCL sequences containing commands directed to CSS or HLCL local commands)

2) Quit the whole synoptic to interrupt a HLCL sequence
(disadvantage: the actual data history is then lost when restarting it).

[24] COL–RIBRE–SPR–8146
HCI: CGS does not work after disconnect/connect the TN LAN

Description:

In testprocedure COL–SEA–QTP–001–ABT issue 6 step 7.5–64 ff failed.
After disconnect the Lan from the Test Node and reconnect after a time, no CGS operations works (e.g. Stop_acquisition 'enditem'). It looks like the enditem is not known any more by the system.

Workaround:

Call System Advisory Window to restablish connections to the test nodes.

[25] COL–RIBRE–SPR–8648
HCI: Explorer spoils HCI screen setup maintenance

Description:

If the explorer in an HCI has been started and the screen setup has been saved by the screen setup maintenance tool, the next time HCI is started the explorer is not started. But it is present in the background, since no explorer can be started anymore. Moreover if HCI is been exited, it hangs in a timeout of about 60 seconds, and then presents the user the choice to execute a forced exit or to wait on. If the explorer is taken out of the screen setup, everything works fine.

Workaround:

Do not use screen setups having the Explorer Window defined.
Start Explorer always manually.

[26] COL–RIBRE–SPR–5350
MDA: Enumeration type and variant composite aggregates

Description:

With the dadi tool you may define enumerations where the enumeration values are words with small letters. This works fine in all over MDB (and maybe also VICOS – I did not test) but not if you choose this enumeration type as discriminant part of a composit aggregate. Reason is, that the dadi editor which allows to create the variant part by entering one enumeration value and the associated aggregate. But unfortunately the enumeration value field of this editor allows only for capital letters. Even cut and past of the values will capitalize them. During editing you may think this will however work but if you try to call this composite aggregate with the dded editor it will not be visible at all.

Workaround:

Use only upper case letters when defining enumeration values in MDB.

[27] COL–RIBRE–SPR–6250
MDA: CCU Difference report causes Storage Error

Description:

When trying to create a CCU Difference report on int2dbs as int2usr1 between Version 1.0.2 and 1.1.0 of the STF CCU at the following Pathname level :

\APM Mission:SUBCO(4) FLTSYS\DMSS

the following error message is reported :

```
########################################
## source_node: ”int2dbs”
## source_pid: 27211
## number: 1
## target_node: ”int2dbs”
## target_user: ”int2usr1”
```

mnemonic: ””
class: ”ORDINARY”
acknowledge: ”ACK_NOT_REQUIRED”
handling: ”LOG_AND_DISPLAY”
timestamp: ”1999 FEB 4 10:42:45”
assembly: ”MPS”
text: ”A call to sub–program REPORT_CONTROLLER in module REPORT_CONTROLLER raised storage_error”
extra_text: ””
supp_text: ””
##
** MAIN PROGRAM ABANDONED — EXCEPTION ”storage_error” RAISED

Although a window is displayed showing some differences, it is impossible to tell whether these are the total differences. At this stage this will mean a manual walkthrough of changes that could result in a delay to the generation of the 1.Z data and software.

Workaround:

Detailed CDU reports still work on the DMS delivered data, so far.

[28] COL–RIBRE–SPR–6763
MDA: HCI crash

Description:

Starting an AP from a synoptic button. The AP starts some sub APs. 5 Synoptic pictures will be displayed. At the end of this scenario HCI crashes. A CORE dump is available(int2dbs: ~cgs2dbs/core.hci_crash).

Workaround:

The processes associated with the synoptic continue to work in the background. To start the synoptics go into the CGS Task Selector and restart the Online Test Control tool. The synoptics will automatically come up in the active state.

[29] COL–RIBRE–SPR–7848
MDA: Could not create a CDU under the system tree

Description:

As defined in step TP–4.2.1, it is not possible to create a CDU direct under the system tree.
After the CDU Version Window is opened to create a new CDU version, an error message ”Wrong MDB instance” is shown in the footer of the window Create CDU Version.

Checking the instance with
select * from t_system_tree_nodes where f_node_name=’EURECA’;
shows the correct MDB–Instance.

Navigating down in the system tree shows, that it is possible to create a CDU at any level in the MDB (but not under the system tree).

The behaviour could be reproduced, also on SIVQ environment.

Workaround:

From SPA:

Open the CDU node via double click on the CDU list item.

[30] COL–RIBRE–SPR–7947
MDA: I_MDB: Pathname Area corrupted

Description:

During Free–Hand test of SPR–7331 the following behaviour was observed:

Following the test steps, as defined in AIV–Notes of SPR–7331. At step 3, after closing the detailed data window the pathname area is coruppted (see attached screen dump).

After an window refresh, the I_MDB navigator shows the correct pathname.

Workaround:

From SPA:

– Select the 'Refresh' menu entry from the windos frame menu
  – OR move the I_MDB window on the desktop
  – OR resize the I_MDB window

[31] COL–RIBRE–SPR–8781
MDA: CLS cannot be called from 'Direct End Item Access' of I_MDB in CCU

Description:

If a UCL_AP end item shall be editet there are always – from CDU or CCU – two ways to select it: 1. navigate to the AP, select it and then select from the tools menu the CLS editor. 2. From within the CDU or CCU, use the 'Direct End Item Access', enter the End Item Type and let the tool show the list of end items in this CU. Then select the desired end item and then select from the tools menu the CLS editor.

But unfortunatelly in the second case – and here only in the case of a CCU – there is an error message: 'CLS Editor: Environment specification has invalid syntax'. Further analysis has shown that in case of 'Direct End Item Acces' from a CCU, in the parameter list the name of the CCU is missing which has to come at the second last place.

It is not analysed here in which version of CGS this error has been introduced and whether it is still present in CGS V4.3.1.

Workaround:

From SPR:

Use Direct Enditem Access only to find the respective AP. Navigate with I_MDB to the AP and then call the CLS Editor via the 'Tools' Menu.

[32] COL–RIBRE–SPR–8821
MDA: MDA: No CLS Batch Compile when missing BDE temporary SID Range

Description:

When no temporary BDE SID range is defined in the MDB, it is not possible to perform a CLS batch compile (on both CCU and CDU).

After investigations it was found that an unnecessary call of the MDA API function MDB_API_CEI.WHO_AM_I causes the problem (found in UCL_Start.sql).

Note:
The problem was found during integration and installation of CGS V4.4.0, but the problem may occur also in CGS V4.3.0 and V4.3.1!!!

Workaround:

Install the BDE range manually as following:

As user cgsadmin:

[cgsadmin@sivq–dbs] (mda/config/mdb_installations) 143 : sqlplus

SQL*Plus: Release 3.3.4.0.1 – Production on Fri Apr 27 11:13:40 2001

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Enter user–name: /

Connected to:
Oracle7 Server Release 7.3.4.4.0 – Production
PL/SQL Release 2.3.4.4.0 – Production

```
SQL> insert into T_MDA_SPECIAL_PURPOSE_RANGES values
   ('BDE','0','BDE','100001','300000','25–APR–01','25–APR–01');
2
1 row created.

SQL> commit;
```

[33] COL–RIBRE–SPR–8843
SWES: C SWEU/SWRU load functions ignore the MDB ownership, consistency and locking concepts.

Description:

1. Altough the end item is owned by another user the , e.g.interactive , Load SW Datasets function is storing values.

2. It is a MDA concept, that updates of end items are notified by an update of the consistency values (status and time) of the CDU version and all CCUs referencing this CDU, directly and indirectly. The load_sw functions do ignore this rule.

3. The e.g.interactive , Load SW Datasets function is storing values for an end item currently locked by another process, e.g. DDED. or maintain references.

Workaround:

For point 2 of SPR:

Don't trust consistency status/date of CDU/CCU version. Run the consistency checker upon completion of SWOP loading to ensure proper states.

For point 3 of SPR:

Avoid parallel read and write activities for the end items or better whole scope involved (such as CDI generation, MMI generation, I_MDB updates, BDE load etc.) and wait for completion of SWOP loading. Take into account that SWOP loading is executed in background (see also SPR–8844). This is in particular of importance when the SWOP loading is embedded in an overall batch generation script.

[34] COL–RIBRE–SPR–5573
TES: incorrect behaviour of TSCV

Description:

1/ selecting an IDLE test configuration having 2 test nodes TES_01 and TES_02 where TES_01 is AVAILABLE and TES_02 not running (NO_CONTACT).

Selecting then TES_01 and performing the action NODE—>SETUP will:
– switch the test configuration into the ACTIVE mode
– setup TES_01 (into mode IDLE).

Performing then the action NODE—>START will start TES_01 (into EXECUTING mode). TES_02 is still not running (NO_CONTACT).

2/ selecting an IDLE test configuration having 2 test nodes TES_01 and TES_02 where TES_01 is AVAILABLE and TES_02 not running (NO_CONTACT).

Selecting then TES_01 and performing the action NODE—>START will:
– switch the test configuration ito the ACTIVE mode
– LAUNCH TES_02 (into AVAILABLE mode) ???????
– setup TES_01 (into mode IDLE
– SETUP TES_02 (into mode IDLE) ???????
– and then start TES_01 (into EXECUTING mode).

The 2 steps marked with "???????" were not expected

Workaround:

If individual test nodes need to be started, and no interaction with other test nodes are wanted:

Use 'Participating' flag of the test nodes to define the test configuration with a single test node. Startup then the individual test node.

[35] COL–RIBRE–SPR–7776
TES: Raw Data Dump Tool does not display every TM packet

Description:

If TM packets are observed using the Raw Data Dump Tool, not every TM packet which can be observed on the CC Bus is displayed.

This can be verified by observing the TM packet's time tag and sequence count. Every third or fourth packet is not displayed.

The effect can be demonstrated by executing Software System Test 5.1 (Telemetry Test).

Workaround:

To look to every packet, use RAW_DATA_DUMP tool of TEV, which works on the data archived.

This tool allows to jump from packet to packet and to inspect the packet as long as the user desires. No packet is lost.

The layout of the window is similar.

The dump can be done online during the test session or offline, after the test session.

[36] COL–RIBRE–SPR–9785
TES: Set_processing OFF does not switch monitoring OFF

Description:

The processing of a measurement can be switched off either by using the Ground_Library command Set_Processing (with parameter OFF) or by defining conditional monitoring (action: Enable_Processing) in the MDB which will enable/disable processing automatically dependant the conditions.

However if the processing is disabled, the monitoring status is still enabled which can be observed in the synoptics (monitoring colour), the GO/NOGO window and by issuing the Ground_Library commands Get_End_Item_Monitoring_Status and Get_Full_End_Item_Monitoring_Status.

Workaround:

Interpret the monitoring status as intended:

'Monitoring Enabled' means: limit checking will be applied to all new and valid values. If processing is disabled, no new valid values will be generated, and thus limit checking is inactive automatically.

Thus 'Processing disabled' implies inactive limit checking, even when monitoring is still 'enabled'. When 'Processing enabled" again and valid new values are generated, limit checking is autmatically aplied again.

[37] COL–RIBRE–SPR–7649
TEV: old event result files not readable

Description:

The CGS 4.3 TEV is not able to read old Event Result Files (4.2). TEV stop with:

ERROR : TEV Internal error.Exception storage_error raised.
Consequence : Current operation fails with unexpected error.
Recovery action : No specific recovery. See system administrator.
Debug information : LOAD_CURRENT_RESULT

4.3 event result files can be load.

Workaround:

Use CGS 4.2 system to create ASCII lists of events instead of result files. Transfer ASCII files instead of Result Files.

Note: Only event result files are incompatible. However, the event result files can be regenerated by re–evaluation from test session, i.e. generating a new event list from the old test session using CGS 4.3.0 (after transfer/upgrade of the test session to the 4.3.0 environment)

7 CGS 4.3 to CGS 4.5 Compatibility Issues

The following is a description of CGS 4.3 to CGS 4.5 compatibility and functional extensions implemented in CGS_4.5

7.1 New Features in CGS 4.4/4.5

The following features in CGS 4.5 are new relative to CGS version 4.3.1**.**

The changes marked by changebar are new in CGS_4.5.0 relative to CGS_4.4.1

- Updated Commercial Baseline
  - Version 6.2.3d of Sun Ada Compiler (VADS)
  - Use actual set of Solaris 2.6 recommended patches
  - TCL/TK Version 8.3.2
- Installation Support
  - New Script to ease/speed up complete MDB export/import (for upgrading MDBs)
- MDB Data Structures
  - Calibration Definitions for Discrete Measurements:
    - Add raw value range / statecode;
    - Increase number of statecodes from 32 to 256
  - Support for definition of Critical GDUs
  - Add Unsigned_Integer as type to Bitstream–Layout items (i.e for predefined values of TC and Binary Packets)
  - Consistency Checks: Some further refinements on attribute checks
  - Consistency Checks for bitstream layout items: unique positions
  - Compilation Date for bodies of UCL User Libs separately from Spec
  - Classes for Cross References to allow for better granularity in handling of dependencies during re–compilation (CLS)
  - New Parameter Types for AP/GDU/TC: BYTE, WORD, LONG_WORD,BYTE_STRING
  - Additional Engineering Units defined
- MDB Interactive Interface / MDA Functions
  - Allow CCUs to be referenced on same system tree level
  - Provide function to freeze all CDUs of a CCU in one step
  - Provide function to change owner of all CCUs in one step
  - For CM User: Allow re–compilation of items in non–owned CDUs
  - Performance Increase in System Tree Navigation (Updating of enditem/reference lists)
  - Configurability of Page sizes for I_MDB (CCU Browser)

  - New / Additional Consistency checker (available under “Tools” menu entry)
    - selection of checks on enditem types
    - selection of check classes (mandatory,referential,...)
    - check categories: Error, Warning,Advisory
    - introduction of loadable check profiles
  - *(*) ”XML Report Generation” Tool provided as Utility for CGS (User definable and printable reports on MDB Contents)*
  - *(*) GWDU Batch Mode (Call GWDU for all synoptics to re–align with changes made to referenced data)*

- TRDB Improvements
  - FA_SAS: Batch Mode improvements
  - Set default to not start the FA_SAS for a test session
  - Display usage of MO disk permanently during export of Test Sessions
  - Inform user on MO disk sequence for a scattered session (store list of disks on each disk)
  - Detect defective MO disks prior to mounting
  - Improved Handling of Disk–Full situations
  - Allow Virtual MO device (e.g. online disk) for FA_SAS
  - New function in FILE_IO_LIB: Add file to test session in TRDB
- Stimuli, TC, SW Commanding
  - Support for Critical GDU Sending / Authorization
  - Allow to suppress GDU/TC Verification (via TES_CONFIG)
- User Interface Updates
  - New GO/NOGO Window
  - New ”Dynamic Measurement/Monitoring” Window
  - Increase Performance during initialisation of Explorer/Monitoring Window
- Monitoring / Calibration / Data Processing
  - Up to 256 Statecodes in discrete calibrations
  - Definition of raw value range per statecode in discrete calibrations
  - Improve checking on ranges in case of float values
  - Allow same raw values for different point pairs in calibration curve (0 – gradients)
- HLCL/UCL/CPL Language Support
  - SPR–8833: New UCL System Library for Ground: GROUND_VALUES
    - `GET_DECALIBRATED_INTEGER_VALUE_FOR_REAL`
    - `GET_DECALIBRATED_UNSIGNED_VALUE_FOR_REAL`
    - `GET_DECALIBRATED_REAL_VALUE_FOR_REAL`
    - `GET_DECALIBRATED_INTEGER_VALUE_FOR_INTEGER`
    - `GET_DECALIBRATED_UNSIGNED_VALUE_FOR_INTEGER`

  - GET_DECALIBRATED_VALUE_FOR_STATECODE
- Ground Library Updates:
  - New Extra_Text, Group, Type – Parameter in the command
    WRITE_MESSAGE_TO_USER
  - New Window Options – Parameter in the following commands
    DISPLAY_PICTURE, READ_MESSAGE_FROM_USER
  - New command to switch the CCSDS APID in TM/TC Packets
    SET_CCSDS_APID
  - New command to define default workstation for message output from APs
    SET_DEFAULT_WORKSTATION
  - New command to start SMT relative to LOT in APs
    START_SMT_WITH_OFFSET
  - New command to set SMT without starting it
    SET_SMT
  - New timeout parameter to in the command
    WAIT_FOR_ADU
  - Return of Application Execution Status from SAS to APs
- Allow for *Type_of* construct in UCL/HLCL / Inherited Types
- Improve handling of Onboard Flag for parameterised enditems
- Improve handling of ALIAS references when detecting dependencies during compilation
- Allow for array definitions with units in UCL
- Check for unintended references to ground items in onboard Automated Procedures
- New data types BYTE, LONG_WORD, BYTE_STRING in UCL/HLCL
  - *Note: Implementation is incomplete: Full functionality in next service release*
- New NULL–Statecode in UCL/HLCL (”$$”)
  - *Note: Implementation is incomplete: Full functionality in next service release*
- New low level conversion in UCL/HLCL (”UNTYPED”)
- Allow imports and declarations in advance to AP declarations
  - *Note: Implementation is incomplete: Full functionality in next service release*
- Increased granularity in re–compilation (CLS batch compile, CLS make): Introduction of reference classes for CLS to differentiate references, which force recompilation from other

- Software Development Support
  - New Implementation of Load Program for SWRUs/ SWEUs
  - Support for files generated in PDB environment
- Test Evaluation
  - Improve performance and size of intermediate files in raw data dump processing
  - Generate external file (ADT Format) only on request
  - More Navigation Support in Raw Data Dumps
- Simulation Model Execution (CSS)

  - add type info to mapping file to allow better mapping to onboard/EGSE enditems
  - Add SMT to State Vector
- External Interface
  - TES_API: New procedure: acknowledge with application return code
  - CSS/CMAS API Extensions
    - *t*imetagged start/stop commands
    - delivery of state and error messages
- Major Bug Fixes
  - SPR–7800: Communication Software Problem: Overflow of buffer in Timeout Situations
- Removal/Extension of Restrictions
  - Number of Statecodes (see above)
  - Number of Version ID Table entries increased (80 –> 250)

Note: (*) Software is to be delivered as patch to CGS_4.5.0

(**) Software is available on a use–as–is basis on a separate “CGS ADD–ON SOFTWARE” CD

7.2 Old Features No Longer Available

In SWES/MDA, CGS does not support the old way of storing SWRU/SWEUs in the MDB anymore

7.3 Incompatibilities with CGS 4.3/4.4 Data

7.3.1 MDB Structures

Items stored in the MDB 4.x (x < 4) version may be exported to MDB_4.5.0 version, but not the other way round (except for SWRUs/SWEUs – see above)

Items stored in the MDB 4.4.0 version may be exported to MDB_4.5.0 version, but not the other way round.

7.3.2 TRDB Structures

There is no change in the TRDB structures in this version.

7.4 Upgrading to CGS 4.5.0

General

- Save user dependent configuration and data files

  There are configuration files such as
  – CGS Product Configuration Parameter files
  – User Profiles
  – Message Handler Properties
  – HCI Screen Setup Files
  – HLCL Login/Logout Sequences
  – HLCL Sequences stored in UNIX file system
  – TEV Evaluation Definition Files
  – TEV Result files
- Run CGS 4.5.0 installation procedure
- Configure CGS
  - Re–install old CGS configuration files
    (System Topology Table, User Profiles, etc)

  To ensure correct working of your CGS environment and to avoid errors in your application after the upgrade please perform following tasks in addition:

MDB

There are some issues to follow when upgrading MDB 4.3.0 (CGS_4.3.0/CGS_4.3.1) resp. MDB_4.4.1 (CGS_4.4.1) to MDB 4.5.0:

- Upgrading of MDB Structure
  - Call upgrade script during installation of CGS_4.5.0 (see above)
    CGS_MDB_V4_3_0_to_CGS_MDB_V4_5_0 or
    CGS_MDB_V4_4_1_to_CGS_MDB_V4_5_0

- Adaptation of MDB data
  - Insertion of the updated **GROUND_LIBRARY** into the MDB
    (see above under Post–Installation)
  - Insertion of the updated **GRD_CMD_TO_OB_LIB** into the MDB
    (see above under Post–Installation)
  - Insertion of the new **GROUND_VALUES** into the MDB
    (see above under Post–Installation)
  - Recompilation of Automated Procedures
    Some APs migth need adaptation because of new parameter profiles of UCL Ground Library procedures (see above)
  - Re–run of the Consistency Checker

- Re–create data for test nodes (see ”Generate SCOE files”)

SAS

SAS are **required** to be recompiled with the latest CGS_API libraries (see above).

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